

Circles

17.2.1 Find the center and the radius of the circle that is the graph of the equation $3x^2 - 12x + 3y^2 + 6y = 15$.

17.2.2 Find the standard form of the equation whose graph is a circle with center $(-2, 7)$ that passes through $(-5, 9)$.

17.2.3 What is the length of the longest chord of the graph of

$$x^2 + 2x + y^2 - 6y = 6$$

that passes through the point $(-2, 4.5)$?

17.2.4★ Find the two points at which the graphs of $2x - y = 7$ and $x^2 - 10x + y^2 + 4y = -4$ intersect.